

## **REMARKS**

This Amendment is responsive to the Office Action mailed October 18, 2004. Claims 1-10, 12, 15, 17, 18, 20, and 25 have been cancelled without prejudice. Claims 11, 13, 14, 16, 19, 21, and 22-24 remain pending in the application.

## **CLAIM REJECTION UNDER 35 USC §103**

Claims 1, 2, 4 and 11 were rejected under 35 USC §103(a) as being unpatentable over Blackmon et al. (U.S. Patent No. 5,956,191) in view of Francel et al. (U.S. Patent No. 5,910,371). For the following reasons, this rejection is respectfully traversed.

Initially, it will be noted that independent Claim 11 has been amended to more positively recite that the compressive stress in the mirror results from the second temperature (i.e., of the facet) being greater than the first temperature, and as the facet cools to an ambient temperature. Specifically, language has been added to the last paragraph of Claim 11 reciting “wherein said second temperature of said facet, being greater than said first temperature, results in a compressive stress being imparted to said mirror when said facet cools to an ambient temperature”. This is not shown or suggested by the Blackmon et al./Francel et al. combination. The Examiner will note that Francel et al. involves taking a section of glass that is in a highly heated condition and exposing the glass to an atmosphere containing metal organic compounds from a specific group. The atmosphere is explained (column 1, lines 40-67) as possibly being gaseous or including liquids in a fine mist obtained by spraying. The heat from the glass causes the metal organic compounds to decompose, leaving a chemically

modified ceramic surface. The chemically modified ceramic surface has a coefficient of thermal expansion lower than that of the unmodified glass substrate.

The Examiner will note that this is different from the method recited in Claim 11 in which the temperature of the facet (i.e., which is not part of the mirror) is maintained above that of the mirror. As the facet cools after the adhesive material is placed between the mirror and the facet, the facet imparts a compressive stress onto the mirror. Thus, there is no requirement that the mirror have a greater coefficient of thermal expansion than the facet to achieve this degree of compressive "pre-stress" on the mirror during the forming process. As will be noted from Francel et al., the coefficient of thermal expansion of the unmodified glass substrate is required to be higher than that of the metal organic compounds. As such, the chemically modified ceramic surface having a lower co-efficient of thermal expansion than the glass substrate, upon cooling, will cause compression of the composite glass article. Furthermore, there does not appear to be any suggestion in Francel et al. of taking a facet and holding the facet at a temperature higher than a mirror during the forming process and relying on the cooling of the facet to induce a compressive stress into the mirror. Accordingly, reconsideration and withdrawal of the section 103 rejection in view of Blackmon et al/Francel et al. is respectfully requested.

Claims 14, 19, 23, and 24 were rejected under 35 U.S.C. 103(a) as being unpatentable over Blackmon et al/Francel et al. and further in view of Sadoune et al. (U.S. Patent No. 4,337,997). In view of the remarks concerning Blackmon et al/Francel et al. and the amendments made to Claim 14, this rejection is also respectfully traversed.

Claim 14 has been amended to even more positively recite that it is the elevated temperature of the facet and the facet cooling to an ambient temperature, that induces a compressive stress into the mirror as the facet cools. This is fundamentally different from Blackmon et al./Francel et al. In view of this significant difference, it is believed that comments concerning Sadoune et al. are not necessary.

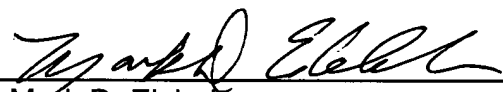
With specific regard to independent Claim 19, it will be noted that the penultimate paragraph has been amended to recite that the facet imparts a compressive stress to the mirror as the facet cools to an ambient temperature. Again, this operation is not disclosed or suggested by Blackmon et al./Francel et al. Reconsideration is therefore respectfully requested.

## **CONCLUSION**

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicant therefore respectfully requests that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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